IAX-PLANCK-INSTITUT FÜR IMMUNBIOLOGIE Otto Westphal

78 FREIBURG-ZÄHRINGEN STOBEWEG 51 TELEFON 50552 POSTFACH 1169 April 28, 1976.

Dear Josh:

We are progressing nicely with the Salmonella-Coli Hybrids. A very exiting question comes up: in how far one can adapt the digestive flora to such newly introduced hybrids. At present, we are trying to follow the fate of such hybrids in normal (conventional) animals with the usual digestive flora and Germ-free animals where the newborn babies are mono-infected with the hybrid in question. It is estonishing how little is known about these questions, at least as far as I can evaluate.

Dr.G.Schmidt was successful in transferring the genes for the biosynthesis of the Vi Antigen to an E.coli with the typhoid 0 antigen, so that we now have a strain with both typhoid antigens, Vi and 0. In addition, it seems that transfer of the genes for the biosynthesis of fimbriae may be possible. Since it is known that fimbriae may be important for the attachment of bacteria onto mucosa cells of the upper digestive tract, we will look for several parameters: would such strains exert longer persistence in the digestive tract?, and would we introduce pathogenicity, because most digestive tract pathogens do have fimbiae.

Did I send you my review article on Endotoxins. If so, throw the one attached here away.

Warm regards,

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